Josephus on the Use of Marble in Building Projects of Herod the Great

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Herod the Great was probably the most enthusiastic builder Palestine ever knew. It is clear from Flavius Josephus, our main literary source for the period, that the king's building activity continued throughout most of his long reign and involved not only the Judaean kingdom, but also many urban centres beyond its borders. The construction projects ranged from single structures like temples or memorial monuments to whole cities remodelled anew. As for Herod's motives, Josephus explains these as either practical considerations, such as security needs, or else the king's evident desire to glorify and immortalize his name. Whatever the reasons, every project seems to have been carefully planned, with special attention paid to the aesthetic appearance of the structures.[1]

In general, Josephus' description of Herod's building activity finds ample confirmation in the evidence on the ground. Remains of a few spectacular buildings, like the Tomb of the Patriarchs in Hebron or the base of a tower in the Jerusalem Citadel survived as part of the Palestinian scenery throughout two millennia; many more, like the complexes of Masada, Caesarea or Jericho were brought to light by recent archaeological excavations.

The trustworthiness of Josephus' account becomes less certain, however, when it comes to precise detail. The evidence of archaeology has already pinpointed a few mistakes made by the historian in this province.[2] An additional case may involve the structural use of marble claimed by Josephus in six of the most ambitious building projects of the king: the temple of Augustus in Paneas, the staircase in Herodium, the colonnaded street in Antioch, the Tomb of the Patriarchs in Hebron, the towers of the Jerusalem Citadel and the porticoes of the Temple in Jerusalem. Josephus says the following in connection with the use of marble in these places:[3]

1. PANEAS: Herod built 'a temple of white marble' (ναὸν ... λευκῆς

[1] For a general survey of Herod's building activity see A. Schalit, *König Herodes. Der Mann und sein Werk* (Berlin 1969), 328–403 (IV.4 Der königliche Bauherr). For a discussion of Herod's motives see E. Netzer, 'Herod's Building Projects: State Necessity or Personal Need?', *Jerusalem Cathedra* 1 (1981), 48–61, 73–80; L. I. Levine, 'Towards an Appraisal of Herod as a Builder', *ibid.*, 62–66; M. Broshi, 'Does "State Necessity" Contradict "Personal Need"?', *ibid.*, 67; Y. Tsafrir, 'Symmetry at Herodium, "Megalomania" in Herodian Architecture, and the Place of Roman Technology', *ibid.*, 68–72.

[2] Josephus reports that the wall of Masada was of 'white stone' and that the columns of its northern palace were 'each formed of a single block', *BJ* VII 8.3 <286, 290>. Excavations showed that the wall was built of dolomite stones, quarried from the cliff itself and covered with white plaster; the columns were made of fluted sand-stone drums, also covered with plaster: Y. Yadin, *Masada: Herod's Fortress and the Zealots' Last Stand* (London 1966), 47, 141; E. Netzer, *Masada III: The Yigael Yadin Excavations 1963–1965. Final Reports: The Buildings. Stratigraphy and Architecture* (Jerusalem 1991), 158–162, 385–387, ills. 250–253, 609, 621–622.

[3] The English translations are from *Loeb Classical Library* (H. St. J. Thackeray).

μαρμάρου καθιδρύσατο). *BJ* I 21.3 <404>.

2. HERODIUM: the monumental staircase consisted of 'two hundred steps of the purest white marble' (βαθμοῖς διακοσίοις λευκοτάτης μαρμάρου τὴν ἄνοδον διέλαβεν). *BJ* I 21.10 <420>.

3. ANTIOCH: the broad street of the city was 'paved with polished marble' for a distance of twenty stadia (τὴν πλατεῖαν κατέστρωσεν ξεστῇ μαρμάρῳ). *BJ* I 21.11 <425>.

4. HEBRON: the Patriarch's Tomb was 'of really fine marble' (τὰ μνημεῖα ... πάνυ καλῆς μαρμάρου). *BJ* IV 9.7 <532>.[4]

5. JERUSALEM (Citadel): the blocks from which the three towers of the Citadel were built 'were cut out of white marble' (λευκὴ δὲ μάρμαρος ἐτμήθη). *BJ* V 4.4 <174>.

6. JERUSALEM (Temple): the porticoes of the Temple were supported by columns, 'each a single block of the purest white marble' (κίονες ... μονόλιθοι λευκοτάτης μαρμάρου). *BJ* V 5.2 <190>.

Although reservations have occasionally been expressed about the truthfulness of these statements,[5] many scholars seem inclined to accept them at their face value.[6] Some go even further and suggest a use of marble at sites where Josephus merely mentions either 'white' or 'polished' stone.[7] There are, however, several reasons for caution. Firstly, archaeology has failed to confirm the use of marble for large architectural elements not only in the places which Josephus explicitly indicates,[8] but indeed in any monumental Herodian structure.[9] The only marble found so far concerns relatively small

[4] Herod is not specifically mentioned in connection with the monument but, according to the prevailing opinion, its architectural style is distinctly 'Herodian': L. H. Vincent, E. J. H. Mackay, F. M. Abel, *Hébron, Le Haram el-Khalîl* (Paris 1923), 99–114.

[5] S. Krauss, *Talmudische Archäologie* (Leipzig 1910), vol. I, p. 288, note 163: 'Josephus pflegt die Bausteine in Palästina Marmor zu nennen'.

[6] I. Löw, 'Marmor. Ein Kapitel aus meinem: Mineralien der Juden', in B. Schindler (ed.), *Gaster Anniversary Volume* (London 1936), 375; A. H. M. Jones, *The Herods of Judaea* (Oxford 1938), 99, 110; E. Schürer, *The History of the Jewish People in the Age of Jesus Christ*, vol. I, revised and edited by G. Vermes, F. Millar and M. Black (Edinburgh 1973), p. 305, note 59; cf. also the model of Herodian Jerusalem in the garden of the Holyland Hotel (Jerusalem).

[7] *Loeb Classical Library*: *AJ* XVI 7.1 <182>; XV 9.6. <331>, note d; F. J. Hollis, *The Archaeology of Herod's Temple* (London 1934), 116 suggests marble paving for the outer court of the Jerusalem Temple on the basis of *BJ* V, 5.2 <192>.

[8] PANEAS: no architectural elements made of marble have been found during recent excavations at the site. At the same time, many marble plates of different colours, 2–4 cm thick, have been discovered. The plates seem to have been used for wall revêtments; it is possible, but not certain that they belonged to the Herodian structure. The authors are grateful to Mr Zvi Maoz, who is in charge of the excavations, for kindly providing the information. HERODIUM: V. Corbo, 'L'Herodion di Gebal Fureidis', *Liber Annuus Studii Biblici Franciscani* 13 (1962/3), 219–266; idem, *ibid.* 17 (1967), 65–121; E. Netzer, *An Architectural-Archaeological Analysis of the Buildings from the Herodian Period at Herodium and Jericho* (Jerusalem 1977) Diss., Hebrew; ANTIOCH: J. Lassus, 'Les portiques d'Antioche', in *Antioch-on-the-Orontes V, Publications of the Committee for the Excavation of Antioch and its Vicinity* (Princeton 1972), p. 143: 'des traces modestes du pavement, qui n'était pas de marbre'); HEBRON: Vincent et al. (note 4); JERUSALEM (Citadel): R. Sivan, G. Solar, 'Discoveries in the Jerusalem Citadel, 1980–1984', *Qadmoniot* 17 (1984), 111–117 (Hebrew), with earlier bibliography; JERUSALEM (Temple): B. Mazar, 'The Excavations in the Old City of Jerusalem Near the Temple Mount—Second Preliminary Report, 1969–70 Seasons', *Eretz-Israel* 10 (1971), p. 2, pl. 27 (Hebrew).

[9] For example, Caesarea: L. I. Levine, *Roman Caesarea: An Archaeological-Topographical*

pieces used for interior decoration, like wall revêtments or floor ornaments executed in *opus sectile*. For instance, the pavement of the orchestra in the theatre at Caesarea had an *opus sectile* decoration made of pieces of coloured marble; the bathhouses at Jericho and Masada have marble pavements and wall revêtments.[10] These, however, cannot be considered an evidence for the employment of marble as a building material for monumental construction.

Secondly, the use of the stone as described by Josephus would appear anachronistic at so early a date as the first century B.C. Since no natural sources of marble exist in Palestine and its vicinity, it had to be imported from far-flung regions like the Aegean Islands, Asia Minor, mainland Greece and Italy. Imports from these places for the purpose of monumental construction are attested for Palestine from the second century A.D. onwards, when the area entered the framework of the Imperial marble-quarrying and trade system. However, no evidence of such imports has yet come to light for earlier periods.[11] Had Herod indeed used marble in the manner implied by Josephus, his case would have been entirely exceptional.[12]

An additional reason for doubting Josephus' testimony is a disparity in his own writings. The Jewish historian wrote two accounts of Herod—one in the *Bellum Judaicum* (*BJ*), another in the *Antiquitates Judaeae* (*AJ*). The king's building programmes are described at length in both compositions; however, references to marble are found only in *BJ*. They are six in number and have been all quoted above since all pertain to Herod's construction projects.[13] There is not a single reference to marble in the whole of *AJ*, if we except the mention of λίθος μαρμάρινος in connection with Absalom's monument in the Valley of the Kings.[14] The story concerns the time of King David and is too remote to be of relevance to our question; moreover, the use of marble in Palestine during the period of the First Temple is in itself highly unlikely.[15]

Study (Jerusalem 1975 [Qedem 2]); Samaria: J. W. Crowfoot, K. M. Kenyon and E. L. Sukenik, *Samaria-Sebaste I, The Buildings at Samaria* (London 1942); Antipatris: M. Kochavi, *Aphek-Antipatris: Five Thousand Years of History* (Tel-Aviv 1989), 97–103 (Hebrew).

[10] CAESAREA: A. Albricci, 'Il pavimento dipinto della conistra', in G. Dell'Amore, D. Adamesteanu (eds.), *Scavi di Caesarea Maritima* (Milano 1965), 93–120; JERICHO: Netzer (note 8), p. 9, fig. 11; MASADA: Yadin (note 2), 81. See also note 8 (on Paneas).

[11] Imports to Rome accounted for the bulk of marble trade up to the Flavian period (J. Ward-Perkins, 'Tripolitania and the Marble Trade', *JRS* 41, 1951, 96–102). However, by the second century A.D., 'with the expansion of the administrative organization and the opening of new quarries, there must soon have been an increasing surplus, the natural market for which lay in the provinces' (ibid., p. 100). According to Ward-Perkins, marble imports into Tripolitania began under Trajan. For Palestine, see M. L. Fischer, *Marble Studies* (Constance, forthcoming).

[12] It is also questionable whether the king could have afforded marble imports on the scale implied by Josephus. The import of large quantities of marble to Palestine must have been costly even in the periods when the trade had become organized. At the time under discussion the sums needed for single-handed imports would have been truly prohibitive. Even contemporary Rome seems to have brought the bulk of its marble from the nearest Italian quarries: Ward-Perkins (note 11), 99.

[13] K. H. Rengstorf (ed.), *A Complete Concordance to Flavius Josephus*, vol. III (Leiden 1979), s.v. μάρμαρος.

[14] *AJ* VII 10.3 <243>. No marble was found at the site: N. Avigad, *Ancient Monuments in the Kidron Valley* (Jerusalem 1954, Hebrew, with English summary). The monument often designated today as 'Absalom's Tomb' belongs to the first century A.D.

[15] Löw (note 6), 375–376.

The intended meaning of the expression was most probably 'of shining stone' or the like.

Of the six Herodian structures where the use of marble is claimed in *BJ*, four are also mentioned in *AJ*. The designations of the building materials there are as follows:[16]

1. The staircase in Herodium is said to consist of two hundred 'polished steps' (ἔχων ἄνοδον ξεσταῖς βαθμίσιν ἐξῳκοδομημένην εἰς διακοσίας). XV 9.4 <324>.

2. The temple in Paneas is reported to have been built of 'white stone' (ναὸν ἐγείρει πέτρας λευκῆς). XV 10.3 <363>.

3. The street in Antioch was paved with 'polished stones' (λίθῳ τὴν ὕπαιθρον ὁδὸν ξεστῷ καταστορέσας). XVI 5.3 <148>.

4. A remark concerning the front wall of the southern portico of the Jerusalem Temple implies that 'all of it was polished' (τοίχου . . . ξεστοῦ παντὸς ὄντος). XV 11.5 <416>.

The total silence of *AJ* on the use of marble in Herodian structures would be difficult to dismiss as fortuitous. Taken as a testimony in its own right, it corroborates the negative findings of archaeology. A possibility, therefore, exists that the mention of marble in *BJ* was due to an error, corrected (or simply avoided) later in *AJ*.

This could have come about in a number of ways. One possibility could be that Josephus found the concept of marble in the writings of Nicolaus of Damascus, his main literary source on Herod.[17] Nicolaus might have blundered or might have consciously exaggerated in order to magnify the achievements of the king, whose close friend and adviser he was. Josephus seems to have drawn on Nicolaus heavily for both *BJ* and *AJ*; at the same time, his utilization of this source was not the same for the two compositions. As far as *BJ* is concerned, all that happened in Judaea before the First Jewish Revolt serves merely as a kind of introduction to the history of the revolt itself; Nicolaus' account of Herod was, therefore, ruthlessly abridged.[18] It is conceivable that Josephus would have done this without too much pondering over details.

In *AJ*, where the history before the War became the main subject, the account of Herod was expanded to some four times the length of the account in *BJ*; this implies more borrowings from Nicolaus in quantitative terms and, probably, more careful reading of the work as a whole. A few passages of *AJ*, where the Jewish historian openly accuses Nicolaus of partiality towards Herod, are clear signs of a more critical attitude.[19] Among less obvious results could have been various factual corrections. For instance, Josephus could have

[16] The English translations are from *Loeb Classical Library* (R. Marcus).

[17] M. Stern, 'Nicolaus of Damascus as a Source of Jewish History in the Herodian and Hasmonean Age', in *Bible and Jewish History: Studies in Bible and Jewish History Dedicated to the Memory of Jacob Liver*, B. Uffenheimer, ed. (Tel-Aviv, 1971), 375–394 (Hebrew, with English summary); R. J. H. Shutt, *Studies in Josephus* (London 1961), 79–91; B. Z. Wacholder, *Nicolaus of Damascus* (Berkeley/Los Angeles 1962), 14–36, 58–64.

[18] S. J. D. Cohen, *Josephus in Galilee and Rome* (Leiden 1979), 53.

[19] *AJ* XIV 1.3 <9>; XVI 7.1 <183–186>.

discarded Nicolaus' references to marble after having paused to recollect what he personally knew about Herodian buildings.[20]

Another possibility is to associate the mistake in *BJ* with one of the assistants who took a hand in the Greek version of the composition. According to Josephus, he first wrote the account of the War in his native tongue (Aramaic);[21] the Greek version was produced later and he mentions certain 'collaborators' in connection with it.[22] Josephus does not specify who these collaborators were or what kind of help they gave. It looks as if their contribution was either related to the translation into Greek of Josephus' Aramaic original or, if this was done by the historian himself, to the polishing of Josephus' Greek draft.

Josephus does not allude to the employment of assistants for his work on *AJ*, although some scholars suggest that he might have received some help here, too.[23] In any case, *AJ* was meant for the Greek-speaking audience from the start and, according to the historian, his command of the language had sufficiently improved by that time.[24] It is, therefore, possible that a few factual mistakes which might have crept into *BJ* due to the misunderstanding of an assistant could have been avoided in the parallel passages of *AJ*. Thus, if the notion of marble had been introduced into *BJ* by a Greek assistant who was accustomed to marble buildings and might have assumed their presence in Judaea, the error was not bound to reappear in *AJ*.[25]

If we accept the suggestion that Josephus erred in *BJ*, then his references there to marble must have designated some other building material rather than the real thing.[26] The repeated use of the adjectives 'white' and 'polished' may signify that these were the main characteristics of this stone. Since stone of a pure white colour is not found in the area, a light-coloured local limestone was most probably meant. Josephus indicates the use of 'white polished stone' for preceding periods as well; the specific mention of this building material is clearly aimed each time at emphasizing its exclusiveness and high cost.[27] References to 'white polished stone' in the time of Herod would seem to have

[20] Cf. D. R. Schwartz, 'On Drama and Authenticity in Philo and Josephus', *Scripta Classica Israelica* 10 (1989/90), note 24 on p. 125; D. S. Williams, 'On Josephus' Use of Nicolaus of Damascus: A Stylometric Analysis of *BJ* 1.225–273 and *AJ* 14.280–369', *Scripta Classica Israelica* 12 (1993), 176–187.

[21] *BJ* I Pr. 1 <3>.

[22] *Ap.* 1.9 <50>.

[23] H. St. J. Thackeray, *Josephus, the Man and the Historian* (New York 1967, rp. of 1929), 100–122. The majority of scholars tend to disagree: T. Rajak, *Josephus: The Historian and his Society* (London 1983), 233–236; L. H. Feldman, *Josephus and Modern Scholarship, 1937–1980* (Berlin/New York 1984), 827–830.

[24] *AJ* XX 12.1 <263>.

[25] Cf. Schwartz (note 20), 124–126.

[26] There is a similar mistake in Pausanias: J. J. Pollitt, *The Art of Rome* (Cambridge University Press 1986), 183.

[27] Buildings by King Solomon: *AJ* VIII 3.2 <64>, 5.2 <139> 'white stone' (translated both times 'white marble' in *LCL*), XX 9.7 <221> 'white stone'; Cyrus' letter concerning the restoration of the Temple: *AJ* XI 1.3 <13>, 4.6 <99> 'polished stone'; the fortress built by Hyrcanus the Tobiad: *AJ* XII 4.11 <230> 'white stone' (translated 'white marble' in *LCL*); the memorial erected by Simon the Hasmonean in Modiin: *AJ* XIII 6.6 <211> 'white polished stone' (translated 'polished white marble' in *LCL*); cf. 1 Macc. 13:27 on the same structure ('white polished stone').

had similar connotations.[28]

It could be argued that certain passages in the rabbinic literature do indicate a use of marble by Herod's builders.[29] The earliest evidence is found in the tannaitic sources. The Mishna describes nine marble tables near the Great Altar of the Jerusalem Temple and one marble table inside the Sanctuary itself;[30] it also mentions several marble slabs covering floor openings—one beneath the Great Altar, another in the Chamber of the Hearth and yet another inside the Sanctuary.[31] A remark on marble columns supporting the passage between the Temple Mount and the Mount of Olives is found in the Tosefta.[32]

Of these, the evidence of the Mishna appears the less problematic. All the items mentioned there are small size artefacts connected with the Temple services; none performs an architectural function.[33] Furthermore, specific indication of marble as the material for these items may point rather to the rarity of the stone than to its massive use.[34] As for the evidence of the Tosefta—which does pertain to architectural elements—it seems to be attributed to a personality born several generations after the destruction of the Temple; the passage may, therefore, contain anachronistic features.[35]

Later rabbinic evidence is found in the Babylonian Talmud which indicates the use of marble for the walls of the Sanctuary, as well as for its Gates.[36] If true, this use may still be explained as exceptional and due to the unique importance of the building. It is, however, far from certain that the Talmud gives us a precise record of the Herodian structure. The source was written in a far-away land, long after the events. The sayings belong to *amoraim* of the third–fourth century; apart from having a poetic flavour, they betray an uncertainty about detail. One sage stated that the Sanctuary was built of *shisha v'marmara* (שישא ומרמרא), while others would rather have it of *shisha, kahla v'marmara* (שישא כוחלא ומרמרא).[37] The expressions are usually taken to mean 'of yellow and white marble' and 'of yellow, black and white marble'.[38]

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[28] To the passages already cited one may add: on Caesarea, *BJ* I 21.5 <408>=*AJ* XV 9.6 <331> 'white stone' (in the latter passage Josephus states explicitly that this 'white stone' was 'not an ordinary material'); *BJ* I 21.7 <414> 'white stone'=*AJ* XV 9.6 <339> 'most polished stone'; on the monument at the tomb of king David: *AJ* XVI 7.1 <182> 'white stone' (translated 'white marble' in *LCL*); the monument is said to have been 'a huge expense'.

[29] The subject is discussed in detail by Z. Grossmark, '*Shayish* (Marble) in Rabbinic Literature', in Fischer (note 11), Appendix II. The authors wish to thank Professor A. Oppenheimer for his helpful suggestions.

[30] *Mishnah, Sheqalim* 6:4=*BT, Tamid* 31b; *Mishnah, Middot* 3:5.

[31] *Mishnah, Middot* 3:3 and 1:9; *Mishnah, Sotah* 2:2.

[32] *Tosefta, Parah* 3:7.

[33] The length of the tables is unknown; the marble slabs are said to have measured 'one square cubit' (0.5×0.5 m). This may be compared with the size of marble blocks used by Herod's builders for the Citadel Towers which measured, according to Josephus, 20×10×5 cubits (*c.* 10×5×2.5 m); for monolithic marble columns of the southern portico he indicates a height of 25 cubits (*c.* 12.5 m).

[34] Grossmark (note 29).

[35] *Ibid.*

[36] *BT, Sukkah* 51b; *BT, Bava Batra* 4a; *BT, Yoma* 31b.

[37] *BT, Sukkah* 51b.

[38] M. Jastrow, *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the*

Josephus, who saw the building still standing, maintains that it was all white.[39]

One cannot, therefore, exclude the possibility that the sayings of the Talmud reflect a later, somewhat idealized, view of the destroyed Sanctuary. If so, they are to be taken with caution. The real structure was certainly built of a fine quality stone, but this stone would have not necessarily been marble and could well have been locally produced. The most luxurious building material available at the time in Herod's domain seems to have been light-coloured polished local limestone; this stone would be, then, the most likely substitute for the 'marble' of our literary sources.

Midrashic Literature (New York 1950), p. 844, s.v. מרמרא.

[39] *AJ* XV 11.3 <392>; *BJ* V 5.6 <223>.